UNIQUE ITEM IDENTIFICATION (UID)

Implementation Working Group

May 29-30, 2003

Agenda – Thursday, May 29

- DoD Guidance Update
- Relationship Between UID and Serialized Item Management Policies
- CONOPS Review Across Services
- Enterprise Identifier & Registration Authorities
- DFAR Cases Overview
- UID in the Medical Community
- Demonstration Proposals Review
- UID Registry & Automated Information Systems

Agenda – Friday, May 30

- Recap from Thursday
- Approach for today
- Team breakout sessions
  - UID Strategic Planning for Implementation
  - Legacy Programs/Business Rules
  - UID Demonstrations
- Team Report Outs
- Session Wrap-up/Next Steps

DoD Guide to Uniquely Identifying Tangible Items - Milestones

- 12 May 03 – 1st Draft guide distributed for review
- 13 June 03 – Comments due (1st Draft)
- 27 June 03 – 2nd Draft distributed for review
- 18 July 03 – Comments due (2nd Draft)
- 31 July 03 – Final Draft released for publication

Coordinated Policy Guidance

- Identification of relevant regulations and guidance requiring reference language for UID
  - Documents
  - Points of Contact
  - Review Process (timeline)
- DoD 5000.64 to be the “home document” for UID language; other regulations to reference home document
- Establish strategy for coordinating with document owners
- Provide any information by 1 July 03

Relationship Between the UID and SIM Policies

- SIM Policy of September 4, 2002 – Diane K. Morales
  - Directed specifically at Equipment Maintenance
  - Delineates unique identification as enterprise ID, part number, and serial number
  - Establishes goals for SIM programs
- UID Policy
  - Policy forecasts to this point – policy to follow with direct action to change applicable standards and regulations
  - Definition of unique identification allows for alternate constructs
  - Establishes goals for unique identification that are similar to SIM policy
  - Collaborative solution supported by Integrated Product Team
- Going forward, UID becomes reference policy
  - SIM goals incorporated into UID policy
  - UID efforts continue to ensure appropriate regulations/standards are adopted

Note: A copy of the SIM policy is available on the UID website.

Review of Existing Related Concepts of Operations

- Research into existing CONOPS to determine:
  - What standards are referenced by the existing CONOPS?
    - Do the existing CONOPS (or the related standards) conflict with the collaborative solution?
  - How do the existing CONOPS determine when marks are applied?
    - Do they contain frameworks that are transferable to the other Services?

Serial Number Tracking System
Naval Supply Systems

- Specific existing standards for unique identification are not referenced.
  - Suggests using best business practice of using two nameplates (Section 3.2) to allow for permanent CAGE/Serial Number for the item.
  - Specifies uniqueness through part number, serial number, and CAGE code (Section 4.1.1)
  - Recommends that establishment of a requirement that: "Require vendors and DoD logistics activities to use the same AIT and data format standards ….within 3 years" (Section 6.1)
- Only applies to "new" inventory, existing tangible items will be covered in a future CONOPS

AIT in an Automated Maintenance Environment for Army Weapon Systems

- Specific section on unique identification
  - Challenges CAGE, Serial Number, Part Number for identification (page 4-3).
    - "On certain parts, the part number may change following the inclusion of a modification"
    - "Historically, manufactures have had no obligation to ensure that serial numbers are unique within their CAGE code"
  - Specifies criteria for a "unique identification" approach
  - Suggests relying on additional attributes and an AIS to ensure uniqueness.
- Recommends marking approach based on four strategies, Opportunistic, Seek and Mark, Intercept, and Vendor Marking (page 4-10)

Review of Enterprise Registration Authorities

- Fundamental Question is:
  - "Should the UID Policy/Collaborative Solution have a bounded list of Enterprise Registration Authorities?"
- Reviewed web sites and literature from five potential sources of Enterprise Identifiers (DUNS, UCC.EAN, CAGE, DoDAAC, and FEIN) to determine if:
  - The authority claims that its enterprise Identifiers are unique
  - Any obstacles to the use of the enterprise identifier exist

D&B DUNS Number

- D&B Website FAQs included the following statements:
  - "The D&B DUNS Number is a ***unique*** nine-digit identification sequence, which provides unique identifiers of single business entities, while linking corporate family structures together."
  - "Since the D&B DUNS Number was introduced in 1962, it has dramatically grown in use and is recognized as a global business identification standard for:
    - ANSI ASC X12 since 1989
    - UN EDIFACT Council since 1991
    - ISO since 1993
    - EDIRA, ECAT, FERC, USPS, and NAFTA
- No obstacles to the use of the DUNS were found

Uniform Code Council.European Article Numbering (UCC.EAN)

- EAN uses a combination of a EAN.UCC prefix, plus a company prefix that is assigned by a specific organization within a country (UCC for US and Canada) to ensure global uniqueness.
- UCC website states:
  - "Your UCC Company Prefix is globally unique, so…"
- There are fees associated with getting a EAN.UCC enterprise identifier as well as the range of numbers for marking products.
- There are fees associated with maintaining membership within EAN.UCC

Commercial and Government Entity Code (CAGE)

- CAGE FAQ page does not claim that CAGE is unique. CAGE is related to Central Contractor Registration (CCR)
- CCR requires a valid CAGE code “prior to the award of any contract, basic agreement, blanket ordering agreement, or blanket purchasing agreement”
- “The code provides for a standardized method of identifying a given facility at a specific location.”
- There are no fees associated with acquiring a CAGE Code

Department of Defense Activity Address Code (DoDAAC)

- The DoD Activity Address Directory DoDAAD states:
  - "The DoDAAC is a six position code that uniquely identifies a unit, activity,or organization that has the authority to requisition and/or receive material"
  - The DoDAAD maintains information associated with DoDAAC including up to distinct addresses (mailing, ship to, and billing)
  - Primary purpose is point location of activities.

Federal Employer Identification Numbers (FEIN)

- Administered by the Internal Revenue Service which does not state that the FEIN is unique
- It is required for all organizations that have employees as well as other well defined criteria.
- The primary purpose of the FEIN is for tax accounting
- The FEIN may fall under the “Privacy Act of 1974”

Enterprise Registration Authorities – Session Comments

- How will DoDAAC be used with respect to UID (business rules)
- Need to be aware of current re-engineering efforts and the use of DoDAAC as a trading partner number
- HIBCC – healthcare standard for medical devices and surgical supplies
- Bounded versus Unbounded – need business rules to define

DFAR Cases Overview

See separate briefings posted to the website.
File names:

- Marking Rule
- Class Deviation

Comments should be provided to Mike Canales at:
Michael.Canales@osd.mil

UID in the Medical Community

See separate briefing posted to the website
File name:

- DMLSS Brief for UID

UID Demonstration Proposals

- Proposals submitted to BMMP (Acquisition Domain) on 15 May for two UID demonstrations:
  - UID Infrastructure (UID Registry, WAWF, Debx)
  - UID Weapon Systems (CH-47, F/A-18, JSF, C-17)
- Presentation to Acquisition Domain and further guidance received
- Revisions and final submission due 28 May (single, combined proposal)

UID Registry & AIS

- Fundamental Questions about:
  - What Agency/Service/Department should house the UID Registry?
  - Unique Identification is defined, how does the UID IPT ensure that the information relevant to UID is available?
  - What else should be in the UID Registry
    - Who – Organization that last scanned a UID marked item, or something else?
    - What – What is the item, how do we know?
    - Where – Where was it scanned? How do we correlate those addresses
    - When – When was it scanned?
    - Why – When it was scanned, what was the reason? (Maintenance, Transportation, etc.)
    - How – How was it scanned?
  - How does the UID Registry fit into the DoD Net Centric Strategy
    - Is the UID IPT the basis for a “Community of Interest” (COI)

Team Breakout Sessions

Results from the Strategy breakout session will be made available under separate cover soon. Notes in this section cover the combined Legacy Issues and Demonstration Pilots groups. Text in **red** indicate comments or modifications by the group.

UID Strategic Planning for Implementation

- Address collaboration aspects of UID implementation
  - Who to involve, when, how
  - Internal and external outreach and communication
- Develop strawman governance model for how to manage UID going forward

Legacy Programs/Business Rules

- Address issues to UID implementation and necessary business rules from two perspectives:
  - Intra-DoD
  - Supply chain-wide

UID Demonstration Pilot

- Define an high-level implementation roadmap designed to address and achieve the proposed metrics and benefits for the proposed weapon systems
  - CH-47
  - JSF
  - F/A-18
  - C-17
- Consider implementation approach(es) with the current infrastructure (e.g., approach, issues, assumptions)

UID Demonstration Pilot - Objectives

- Identify and mark a defined set of tangible items with a form of Automatic Identification Technology (AIT) media such as linear bar codes, two-dimensional bar codes, optical memory cards, contact memory buttons, or radio frequency identification, that carries the data elements and constructs of the UID collaborative solution
  - Army CONOPS defines “primary” AIT
  - “Minimum” AIT should be linear barcode of data matrix, any other AIT media is *in addition to* that minimum
  - Proposed business rule: Use of optically-read media (linear or 2D)
  - Recommendation: in UID guidance, point to another source of guidance which details what type of media to use in certain circumstances
- Capture and establish quality data through the integration of AIT and automated information systems (AIS) to create accurate “build records” for weapon systems

UID Demonstration Pilot – Objectives, *continued*

- Document best practices and lessons learned, and address perceived implementation issues to identify potential solutions through the demonstration of UID implementation with the proposed weapon systems programs
- Register selected tangible items with a UID in a secure web-based database to capture and validate uniqueness of the item
  - DoD will *contract* for uniqueness, not verify uniqueness
  - The database needs to be able to *validate* the UID
- Enable *future* access to key information about the tangible asset including ownership, value, location, status, and description

UID Demonstration Pilot - Benefits

- Integration of data for tangible items for the proposed platforms across the Department, government, and industry systems
- Provide source data to enable future visibility (e.g., in-transit, inventory, maintenance) to marked and recorded flight critical items, as defined for each of the proposed platforms
- Demonstration of the utility of the machine readable UID in engineering data management, configuration management, product acceptance, and maintenance management (e.g., failure data collection)

UID Demonstration Pilot – Benefits, *continued*

- Documentation of the effectiveness of the different UID implementation approaches for each pilot demonstration
- Documentation of the quality, repeatability, and scalability of the UID machine readable media to provide reliable data for repositories/AISs
- Access to flight critical item data (e.g., usage, life limit) for demand forecasting (e.g., inventory control) and predictive budgeting activities
- Help facilitate valuing DoD inventory

UID Demonstration Pilot - Metrics

- Improve quantity and quality of AIT/AIS integration with the UID infrastructure
  - Number of keystrokes for data entry (reduction)
  - Data entry errors/error rate
  - Cycle time through the supply chain (minimize/eliminate identifier translations – all using UID)
  - One-touch accuracy (P&W ex: one error in serial number requires 8 hours to fix)
  - Reduction in item mis-identification (shipping/receiving errors) – addresses stock in transit
  - Improvements in configuration management (e.g., serial number reconciliation)
- Number of tangible items marked and the total set of tangible items to be marked, as defined by the proposed platforms
  - Change in warranty transactions (improvement in validity of transactions)
  - Define what items: high/frequent failure rate (mean time between failures, average time in service)
- Improvement in the data quality with the machine readable UID over human readable data entry
  - Number of keystrokes for data entry (reduction)
  - Data entry errors/error rate
- AIT effectiveness, reliability, and consistency attained within the proposal period
- Technology maturation in readers (software)
- Dollar value of items marked and quantity (categorized)

UID Demonstration Pilot – Metrics, continued

- Percent of milestones reached within 1 week (or set tolerance level) of projected date
- Budget variance - dollar amount and percent of total budget either over or under (as of any given date)
- Percent of project issues resolved in a reasonable timeframe (set tolerance level)
- Percent of items in sample population that have progressed through a full testing cycle (as of any given date)
- Percent of implementation techniques and discoveries that can be applied universally to other implementations (as opposed to item-specific or pilot-specific)
- Project risk level (green, yellow, red)

Demonstration Pilots & Legacy Issues

- Recommendations
  - Construct a matrix to illustrate which criteria (metrics, benefits) will be satisfied by each demonstration program (may need to have some program-specific criteria)
  - Need a procedure for handling duplicate UIDs entered into the registry (e.g., suffixing the number)
    - Draft example to be provided by NY Transit Authority
  - Through demonstrations, identify business processes that need to change to realize the benefits of UID

Next Steps

- Distribute session output for review and comment
- Continue to provide feedback and information (e.g., DoD Guide, Coordinated Guidance)
- Plan for future team meetings
  - June 12, 11:00 am ET (telecon)
  - Additional telecons? Keep bi-weekly schedule and/or work in smaller teams.
  - Full IPT at the end of July